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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,931	01/08/2002	Salvador Aldrett	C-7211	4506

7590 04/06/2004  
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EXAMINER	
MANOHARAN, VIRGINIA	
ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 04/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/042,931

Applicant(s)

ALDRETT ET AL. 

Examiner

Virginia Manoharan

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01-08-02.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2</u> . | 6) <input type="checkbox"/> Other:  |

### DETAILED ACTION

The abstract of the disclosure is objected to because of the inclusion of legal phraseologies often used in patent claims such as: "comprising" in lines 10, 12 and "consisting of" in lines 15 & 21. Correction is required. See MPEP § 608.01(b).

The specification has not been checked to the extend necessary to determine the presence of all possible minor errors, e.g., typographical, grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

Claims 1-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. It is unclear what constitute the "extracted composition" and any azeotropic agent in claim 1 (b) "azeotropically " distilling step within the context of the claimed invention. It is also unclear as to what happen to water & acetic acid as they are not covered in the "extracting" and " azeotropically distilling" steps in claim 1.

b. The phrase "at least about" in claims 10, 19, 27-28 is indefinite because there is no indication as to what range of specific activity is covered by the term "about". See 18 USPQ 2d 1016 Fed. Cir. (1991).

c. The term "up to" would presupposed for the inclusion of zero, thereby rendering an otherwise definite claim, indefinite if there no "acrylic acid" ? See claim 20.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yomiyama et al. (3,433,831) or Sakamoto et al (6,084,127) in view of Matsumura et al (4,142,050).

Either Yomiyama et al or Sakamoto et al discloses a method of recovering acrylic acid from a mixture comprising acrylic acid, water and acetic comprising in combination of : (a) extracting acrylic acid from said mixture with a solvent mixture comprising ethyl acrylate as the main component thereof and (b) azeotropically distilling said extracted composition to recover acrylic acid, as broadly claimed in claim 1. See e.g., col.3, lines 24 – 36 of Yomiyama. The process of Yomiyama or Sakamoto differs from the claimed invention in that claim 1, for example, recites extracting in the presence of a co-solvent selected from the group consisting of "... toluene, heptane, 1-heptene.... and methylenecyclohexene ..." However, incorporating an organic co-solvent in the process of Yomiyama or Sakamoto, in the manner as taught by Matsumura, would have been obvious to one of ordinary skill in the art inasmuch as Sakamoto, for example, suggests the presence of a solvent in its processing of material containing acrylic acid.

The claimed wt % recited in claims 3-10, & 14-15 ; the weight ratio in claims 12-13 and the temperatures in claims 29-30 are deemed to be result – effective- variables which ordinarily are within the skilled of the art. See also claims 18 – 24 and 26 – 28;

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Wagner discloses an acrylic acid recovery and purification process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-272-1450..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/lap  
November 12, 2003

  
V. Manoharan  
11/12/03